15

CLAIMS

What is claimed is:

- 1. A fungicidal composition for topical application to woody plant periderm, the composition comprising:
- 5 (a) a systemic fungicide:
 - (b) an organosiloxane surfactant; and
 - (c) water.
- 2. A fungicidal composition for topical application to woody plant periderm, the composition comprising:
 - (A) an aqueous solution comprising:
 - (i) at least one part by weight of a phosphite compound; and
 - (ii) from about 0.0001 to about 3.0 parts by weight of an organosiloxane surfactant per part of phosphite compound; and
 - (iii) from about 0.0001 to about 1.0 parts by weight of a glycol or glycol ether per part of phosphite compound, where the aqueous solution comprises from about 1 to about 100% by weight of a phosphite compound.
- 20 3. A method for preventing and curing disease cause by fungus or other pathogen, the method comprising:

applying a fungicidal composition to the bark periderm of woody plants without mechanically penetrating the bark of the plant, said fungicidal composition comprising:

an aqueous solution comprising:

- i) at least one part by weight of a phosphite compound; and
- (ii) from about 0.0001 to about 3.0 parts by weight of an organosiloxane surfactant per part of phosphite compound.
- 4. The fungicidal composition of claim 1 and 2, or the method of claim 3, where the fungicidal composition further includes at least one of a solvent, a surface active agent, and a phosphate compound.

WO 2005/000021 PCT/US2004/019847

5. The fungicidal composition of claim 1 and 2, or the method of claim 3, where the organosiloxane surfactant includes a trisiloxane defined by the formula

$$\begin{array}{c|cccc}
R & R & R \\
 & & & \\
R & & & \\
R & & & \\
R & & & R
\end{array}$$

where R is a short chain alkyl group, R^1 is an alkylene group, and Z is a polyoxyalkylene group.

- 6. The fungicidal composition of claim 1 and 2, or the method of claim 3, where the organosiloxane includes a polyoxyethylene heptamethyl trisiloxane.
- 7. The fungicidal composition of claim 1 and 2, or the method of claim 3, where the fungicidal composition includes from about 0.005 to about 1.0 parts by weight of the organosiloxane surfactant per part of the systemic fungicide.